

# **A PLAN FOR THE NEXT ECONOMIC TRANSFORMATION**

**Greater Phoenix Metropolitan Business Planning  
Strategy Development Sessions**

**November 7-8, 2012**

# WORKSHOP AGENDA

**Project Overview**

**Metropolitan Business Planning**

**Market Facts and Observations**

**Strategy Discussion**

**GREATER PHOENIX  
MBP PROJECT  
OVERVIEW**

# GREATER PHOENIX MBP: PROGRESS AND PROCESS

## Market Analysis & Strategy Development

- Develop a strategic market overview (SO) consistent with the MBP framework. A rigorous market analysis should serve as the basis for defining and prioritizing regional strategies and lead initiatives.

## Lead Initiative Development

- Develop a business plan to execute and operationalize a chosen lead initiative(s). The initiative must be transformative and capable of positioning the region for high-value sectors of the new knowledge economy.

## Implementation Plan

- Develop an implementation plan to put in place appropriate governance structure and collaborative process for the lead initiative.

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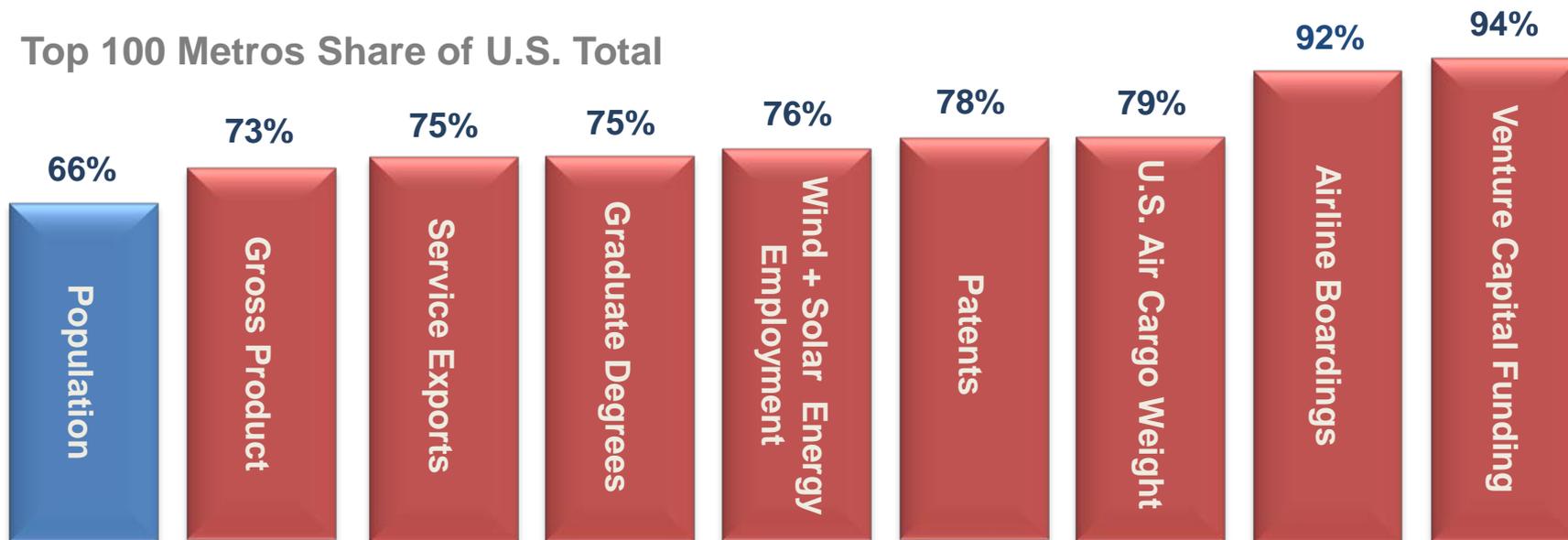
**METROPOLITAN  
BUSINESS PLAN  
FRAMEWORK AND  
OVERVIEW**

# METROPOLITAN BUSINESS PLANNING: A NEW WAY OF DOING BUSINESS

The global economy is undergoing a fundamental transformation, driven by knowledge assets

As a result, the economy is more dynamic and global

And centered in metropolitan regions



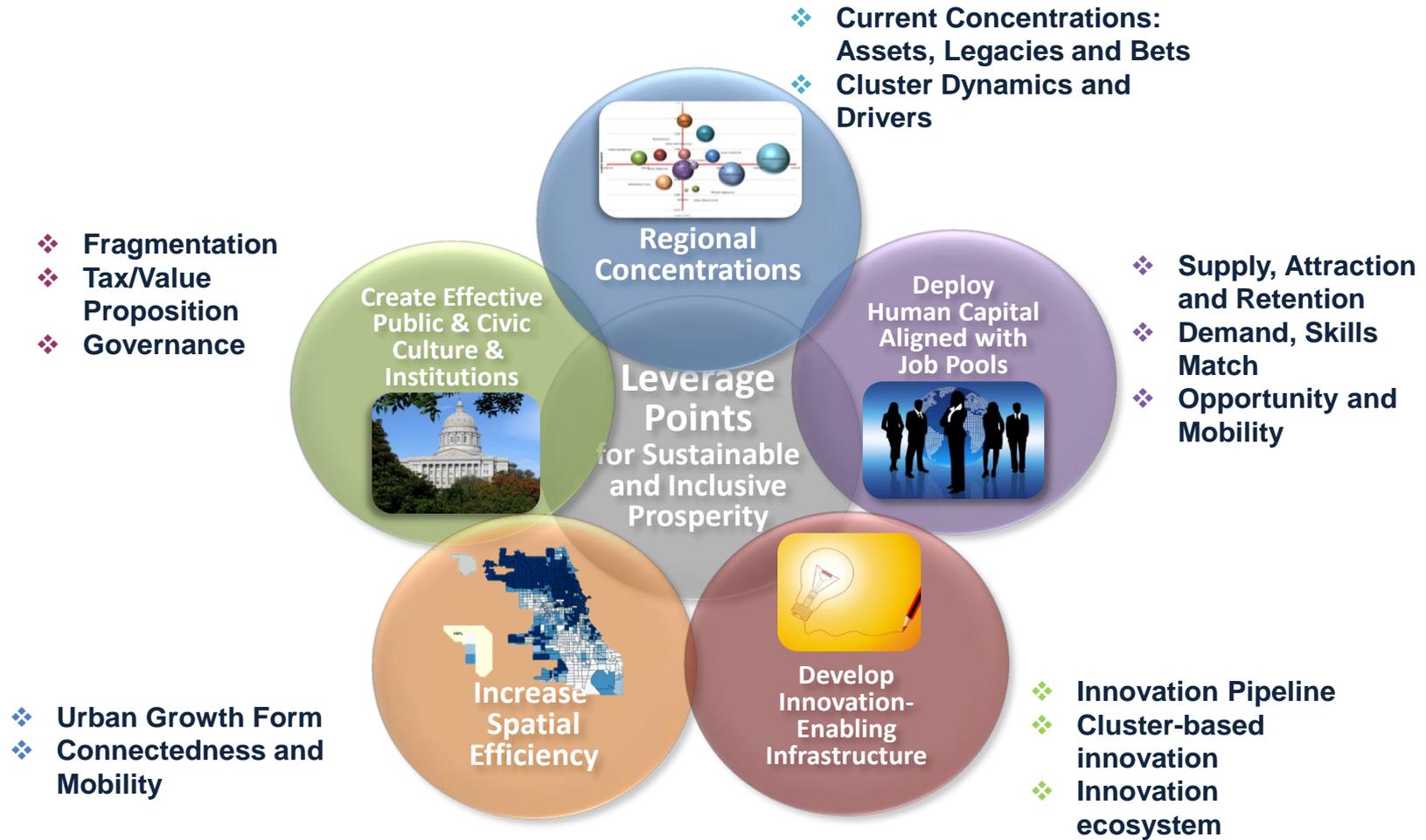
Sources: Brookings analysis of US Census Bureau, FAA, BLS, NIH, NSF, and BEA data; Brookings, ExportNation, 2010 (2008 data); Forthcoming research from Brookings and Battelle

# HOW METRO ECONOMIES GROW

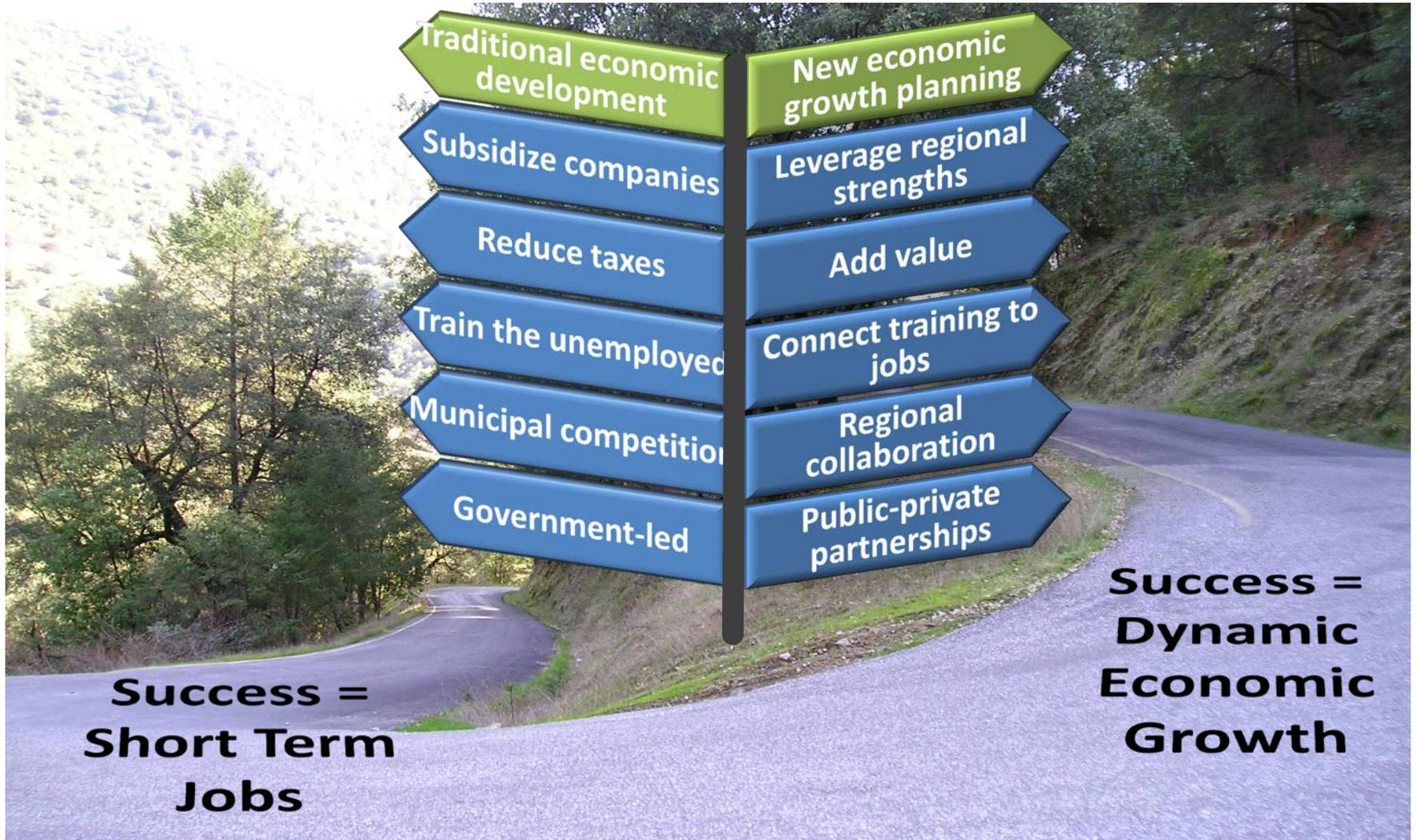
- **Metro economy = total value of goods and services produced in the region**
- **Growth is inherently business sector growth (number, size and profitability of firms)**
- **Business sector grows through firm creation, growth and location decisions (retention and attraction)**
- **Firm creation, growth and location depend upon increases in efficiency and productivity (of firm and system, including product innovation)**

**Core Question: What attributes of the region increase efficiency and productivity, leading to business sector growth?**

# FIVE MARKET LEVERS DRIVE REGIONAL ECONOMIC PERFORMANCE



# THE REGION IS AT A CROSSROADS, AND NEEDS NEW STRATEGIES TO PROSPER IN THE NEXT ECONOMY



# **GREATER PHOENIX REGIONAL OVERVIEW**

# GREATER PHOENIX MARKET OVERVIEW

## Fast growing economy ...

**\$173B GMP (2010)  
15th Largest Metro**

**70% of state economy**

**GMP growth outpaced  
U.S. and top metros  
(2001-09)**

**Job growth outpaced  
U.S. and top metros  
(2001-09)**

# GREATER PHOENIX MARKET OVERVIEW

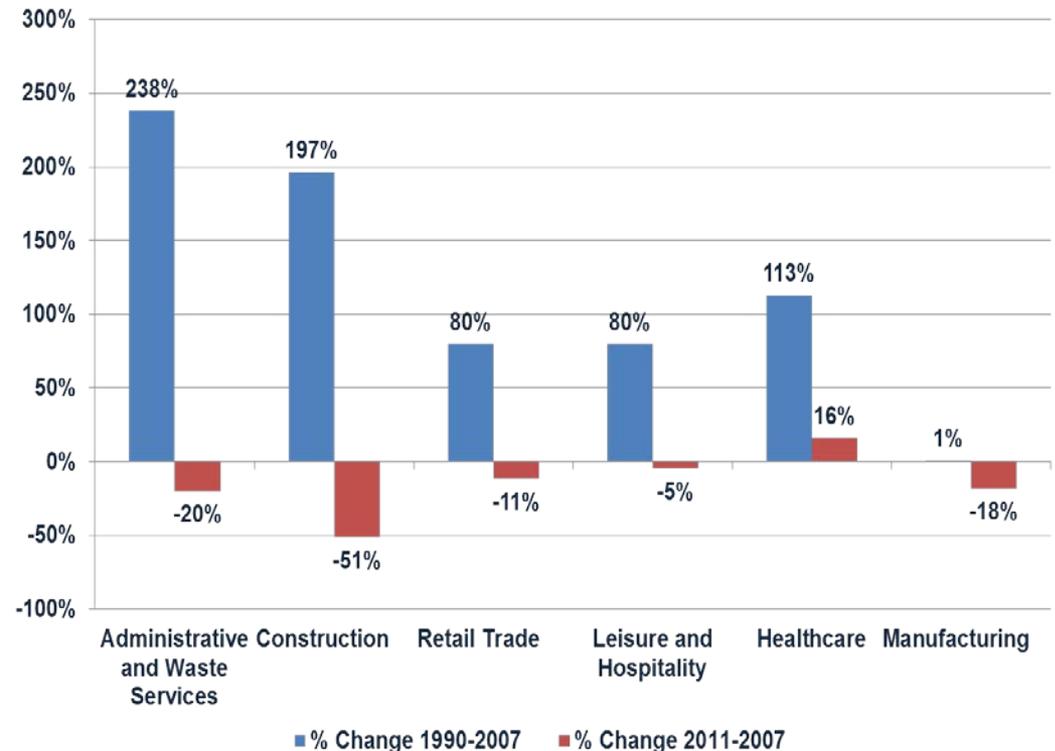
**Growth driven by population...**

Population growth  
2<sup>nd</sup> fastest in the 1990s  
4<sup>th</sup> fastest in the 2000s

70% of population growth  
attributed to net migration  
(2001-10)

Reflected in employment dynamics –  
five sectors accounted for 56% of job  
growth and 72% of job loss

Manufacturing flat and lost 18% of jobs  
in the recession



Source: Arizona Department of Administration, Office of Employment and Population Statistics

# GREATER PHOENIX MARKET OVERVIEW

**Economic performance is lagging... not resulting in greater prosperity**

**Productivity is below U.S. and top metros  
(2001-09)**

**Five of the least productive sectors account 627,180 jobs**

**Manufacturing employ 112,000 (7.5%)  
Construction & retail employ 290,000 (14%)**

**Exports grew 29% while U.S. exports grew 60% (2005-11)**

**Median household income (\$50,385) below top and peer metros**

# GREATER PHOENIX MARKET OVERVIEW

**Upside... region has good assets for the next economy**

**Core Sectors with  
productivity and  
innovation potential**

**Aerospace**

**Electronics &  
Semiconductor**

**Emerging Sectors  
Personalized Medicine  
Information Tech  
Renewable Energy**

**Large and diverse  
labor force**

**Increasing innovation  
capacity to transform  
good ideas to  
commercialization**

# **IN SUMMARY...EMERGING THEME AND VISION**

**Our region is beginning to shift into more innovative sectors of the next economy...**

- ❖ **Can be observed in aerospace, renewable energy, electronics, informative technology, and personalized medicine**

**Consequently, the region needs to position its assets for the next economy and drive greater productivity and prosperity...**

- ❖ **Increase research capacity at universities and industries; enhance commercialization; attract, retain and train workforce; support entrepreneurial activities with the right resources; and invest in 21<sup>st</sup> century infrastructure and urban form**

**The region must support/accelerate this transformation with targeted and strategic interventions (right kind of public & private investments)**

**GREATER PHOENIX  
REGIONAL  
CONCENTRATIONS**

# Discussion Agenda

**Market facts and observations**

**Assessment of opportunities**

**Strategies for addressing opportunities and gaps**

**Leveraging existing efforts**

# REGIONAL CONCENTRATIONS

## What is it?

- ❖ **Geographic concentrations of specialized firms, industries, and institutions**
- ❖ **Co-location benefits: sharing of labor and other productive inputs generate productivity, efficiency, and knowledge spillovers**

## Aspects to consider:

- ❖ **Promising clusters in terms of growth, size and concentration**
- ❖ **Clusters needing redeployment and transformation**
- ❖ **Gaps in the shared inputs (workforce, infrastructure, supply chain)**

# REGIONAL CONCENTRATIONS - FACTS

**Region can build on its diverse industrial base...**

## **Industries with strong concentration**

- 51 industries
- 430,900 jobs, or 30% of total jobs

## **Tradable sectors**

- 20 of the 51 industries
- 147,000 jobs or 10% of total jobs

## **Non-tradable sectors**

- 31 industries
- 291,110 jobs or 20% of total jobs

# REGIONAL CONCENTRATIONS - FACTS

**Our region has strong assets to leverage for the next economy... but they also face challenges**

## Core

**Strong concentration & good prospects for productivity growth**

- Aerospace & Defense
- Electronics & Semiconductor
- Finance & Insurance

## Emerging (“Bets”)

**Not yet concentrated but strong growth projections**

- Biomedical
- Information Technology
- Renewable Energy

## Upgrade

**Need to upgrade to keep up with changes in market conditions**

- Other Manufacturing

# ASSESSMENT OF OPPORTUNITIES

- **Encourage industry cluster development opportunities by harnessing the region's promising growth sectors such as healthcare, renewable energy and information technology.**
- **Support core sectors such as aerospace and electronics to reposition capabilities and assets for new growth markets.**
- **Improve exports by providing the right types of support, infrastructure, and inputs.**
- **Facilitate university-industry partnerships to accelerate commercialization.**
- **Invest in specific and cross-industry infrastructure to promote high-value economic activities.**

# REGIONAL CONCENTRATIONS - QUESTIONS

**What industries in our region will be known for in the next economy, and what are the kind and scope of strategies to get us there?**

- ❖ **What are our core, emerging and upgrade clusters?**
- ❖ **What gaps exist in our industry clusters?**
- ❖ **What do our clusters need to become more productive, grow jobs and firms, and globally competitive?**

# **GREATER PHOENIX HUMAN CAPITAL**

# Discussion Agenda

**Market facts and observations**

**Assessment of opportunities**

**Strategies for addressing opportunities and gaps**

**Coordination with existing efforts**

# HUMAN CAPITAL

## What is it?

- ❖ **Linking human capital and job pools**
- ❖ **Supply of skilled workers to meet employer demands**
- ❖ **Demand for skilled workers by cultivating appropriate jobs**

## Aspects to consider:

- ❖ **Concentrations and growth prospects (both skills and occupations)**
- ❖ **Existing skills/education levels – obstacles and opportunities**
- ❖ **Quality of education/training system**
- ❖ **Attraction/retention record and factors**
- ❖ **Greater coordination, improved workforce information flow and feedback between employers and training**

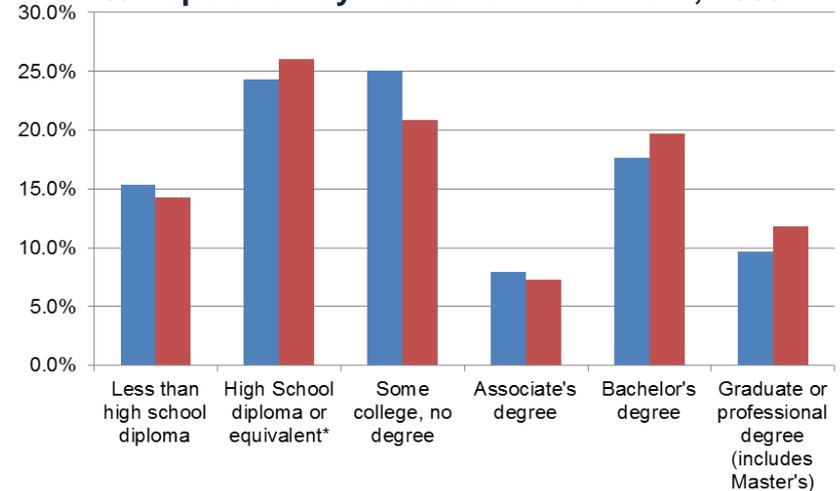
# HUMAN CAPITAL - FACTS

**A large and growing labor force, but under-educated**

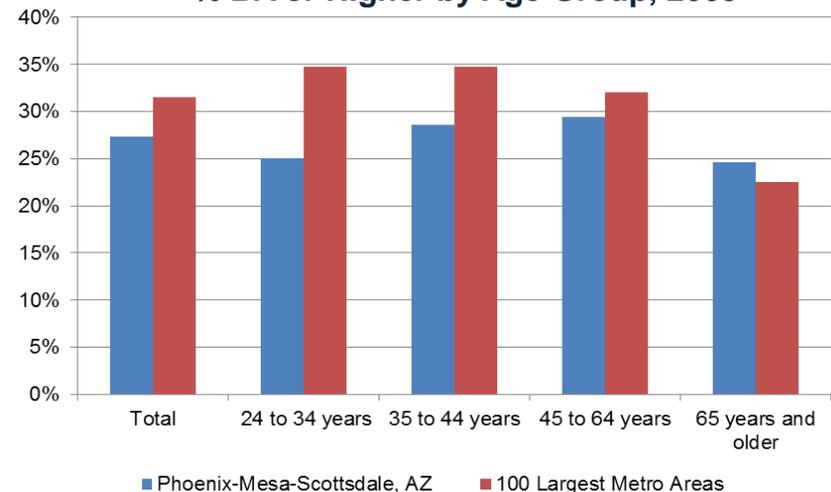
**Labor force dynamics attributed to...**

- ❖ **Net inflow migration**
- ❖ **Low-skilled immigrant population**
- ❖ **Loss of jobs in the recent recession**
- ❖ **Industry restructuring – transitioning skills for demand occupations**

**% Population by Education Attainment, 2009**



**% BA or Higher by Age Group, 2009**

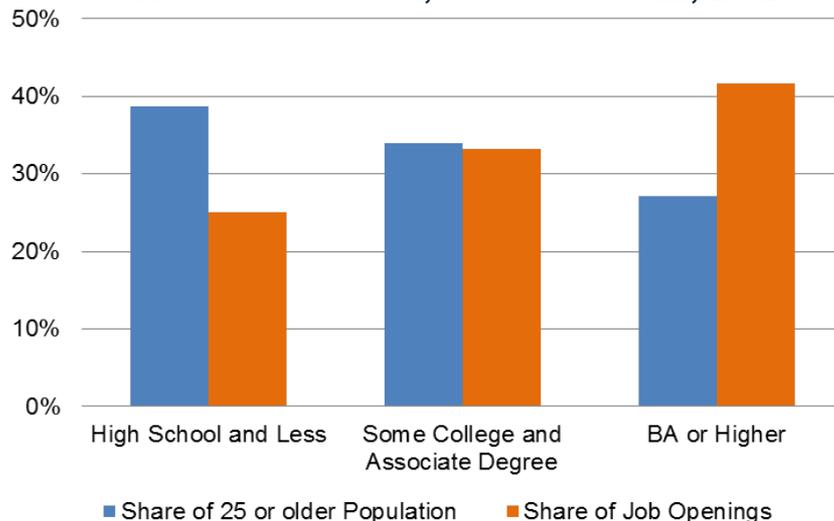


# HUMAN CAPITAL - FACTS

**Significant skills-to-jobs mismatch at higher-skill levels poses challenges for knowledge-driven economy**

- ❖ **Over supply of less educated and lower-skilled workers**
- ❖ **Middle skills-to-jobs match**
- ❖ **Shortage of educated and higher-skilled workers**

**Skills to Jobs Match, Greater Phoenix, 2012**



**Top 10 Occupations in Demand, Greater Phoenix, 2012**

Title of Occupation	Number of Openings in MSA for Minor Occupation, Jan-Feb 2012	Occupation share of total metro areas openings in 2012
Computer Occupations	13,877	14%
Health Diagnosing and Treating Practitioners	10,012	10%
Information and Record Clerks	4,007	4%
Sales Representatives, Services	3,497	4%
Other Management Occupations	3,425	4%
Financial Specialists	3,178	3%
Business Operations Specialists	3,095	3%
Retail Sales Workers	2,980	3%
Engineers	2,932	3%
Supervisors of Sales Workers	2,924	3%

Source: Analysis by Brookings, Conference Board, Help Wanted Online Series

# ASSESSMENT OF OPPORTUNITIES

- **Develop demand-driven and targeted workforce development strategies to meet the needs of next economy sectors.**
- **Increase access to vocational training and educational opportunities for younger age groups.**
- **Engage seasoned and skilled talent in entrepreneurial support, business training, and other productive capacity.**
- **Continue to attract and retain a diverse labor force.**
- **Promote innovative labor market intermediaries and strategies**

# HUMAN CAPITAL – DISCUSSION QUESTIONS

**How do we better develop, retrain, attract, retain and efficiently deploy an on-going supply of talent aligned with next economy growth?**

- ❖ What are the dynamics that explain high level of skills to jobs mismatch?**
- ❖ In what ways can we best prepare existing and projected labor force skills?**
- ❖ What opportunities and obstacles exist in facilitating labor mobility (i.e., training/retraining, internships)?**
- ❖ Opportunities for targeted retraining, credentialing?**

**GREATER PHOENIX  
INNOVATION-ENABLING  
INFRASTRUCTURE**

# Discussion Agenda

**Market facts and observations**

**Assessment of opportunities**

**Strategies for addressing opportunities and gaps**

**Coordination with existing efforts**

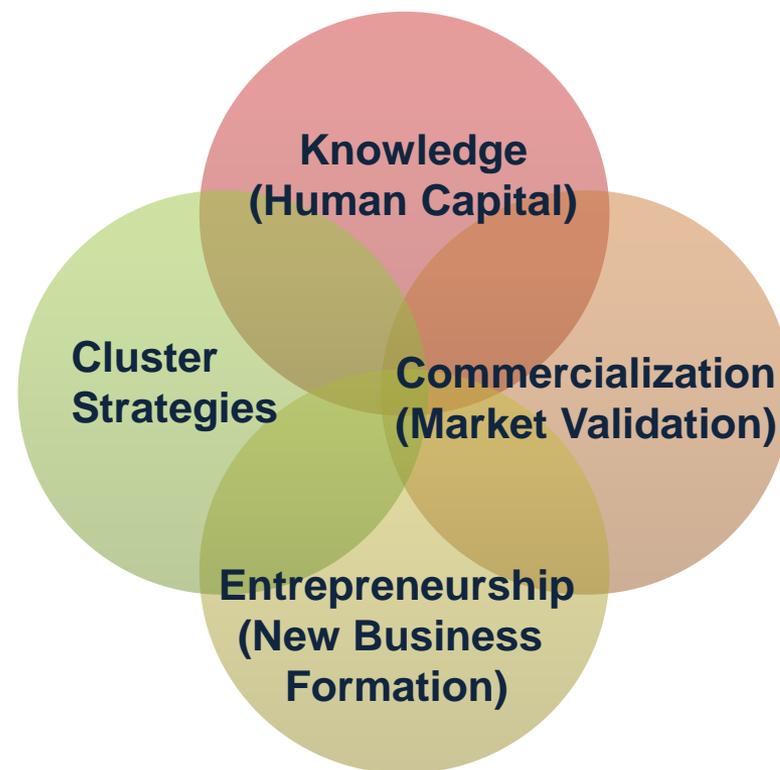
# INNOVATION

## What is it?

- ❖ Innovation drives increasing productivity and efficiency - the source of all long-term growth. Innovation results in development of new products, processes, business models, and markets.

## Aspects to consider:

- ❖ Knowledge/discoveries
- ❖ Cluster specific strategies
- ❖ Commercialization of R&D
- ❖ Entrepreneurship



# INNOVATION - FACTS

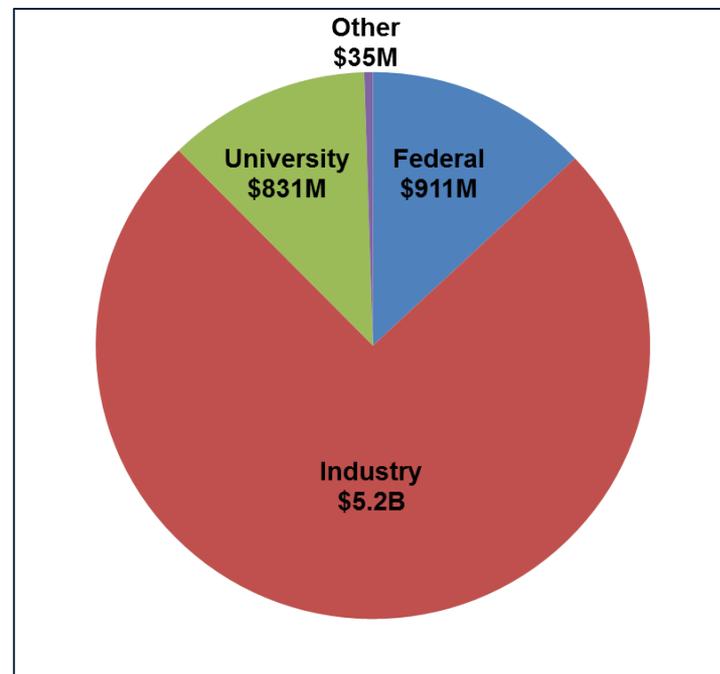
**Industry comprised 75% of total R&D expenditure in AZ**

**Industry R&D investment is focused on targeted development, not basic research**

**Lagging basic university research funding poses challenges for new discoveries**

**Arizona's university R&D funding ranked 40<sup>th</sup> in 2009**

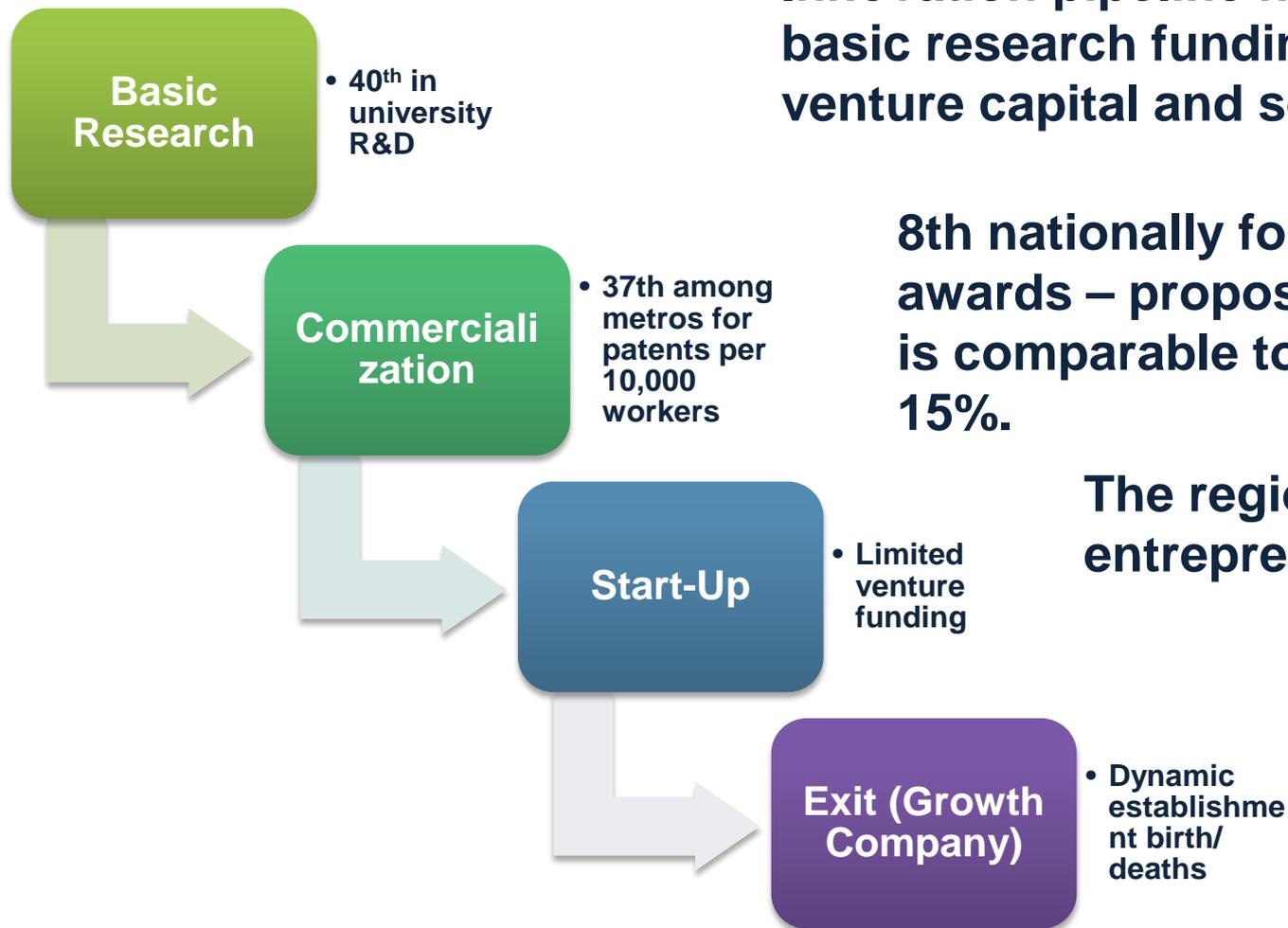
R&D Expenditures, Arizona, 2008



Source: National Science Foundation

# INNOVATION - FACTS

Innovation pipeline hampered by low basic research funding, limited venture capital and seed funding



8<sup>th</sup> nationally for SBIR/STTR awards – proposal-to-award ratio is comparable to California at 15%.

The region has strong entrepreneurial activity.

# ASSESSMENT OF OPPORTUNITIES

- **Increase university-industry research and development opportunities**
- **Validate and make accessible commercialization resources**
- **Implement targeted strategies to accelerate start-up activity in growth markets in information technology**
- **Create opportunities for greater connectivity among firms, entrepreneurs, and investors**
- **Attract and retain venture capital**

# INNOVATION – DISCUSSION QUESTIONS

**What will enable us to shift towards more continuous innovation across the economy?**

- ❖ **What do we have that should be enhanced and what are we missing in our innovation ecosystem?**
- ❖ **What industry clusters have innovation-rich potential and what do these cluster need?**
- ❖ **What kind of public and private coordination is needed to improve innovation pipeline?**

# **GREATER PHOENIX SPATIAL EFFICIENCY**

# Discussion Agenda

**Market facts and observations**

**Assessment of opportunities**

**Strategies for addressing opportunities and gaps**

**Coordination with existing efforts**

# SPATIAL EFFICIENCY

## What is it?

- ❖ The location of firms and workers within the region determines costs for people and businesses, and influences agglomeration benefits (such as shared inputs and knowledge spillovers)

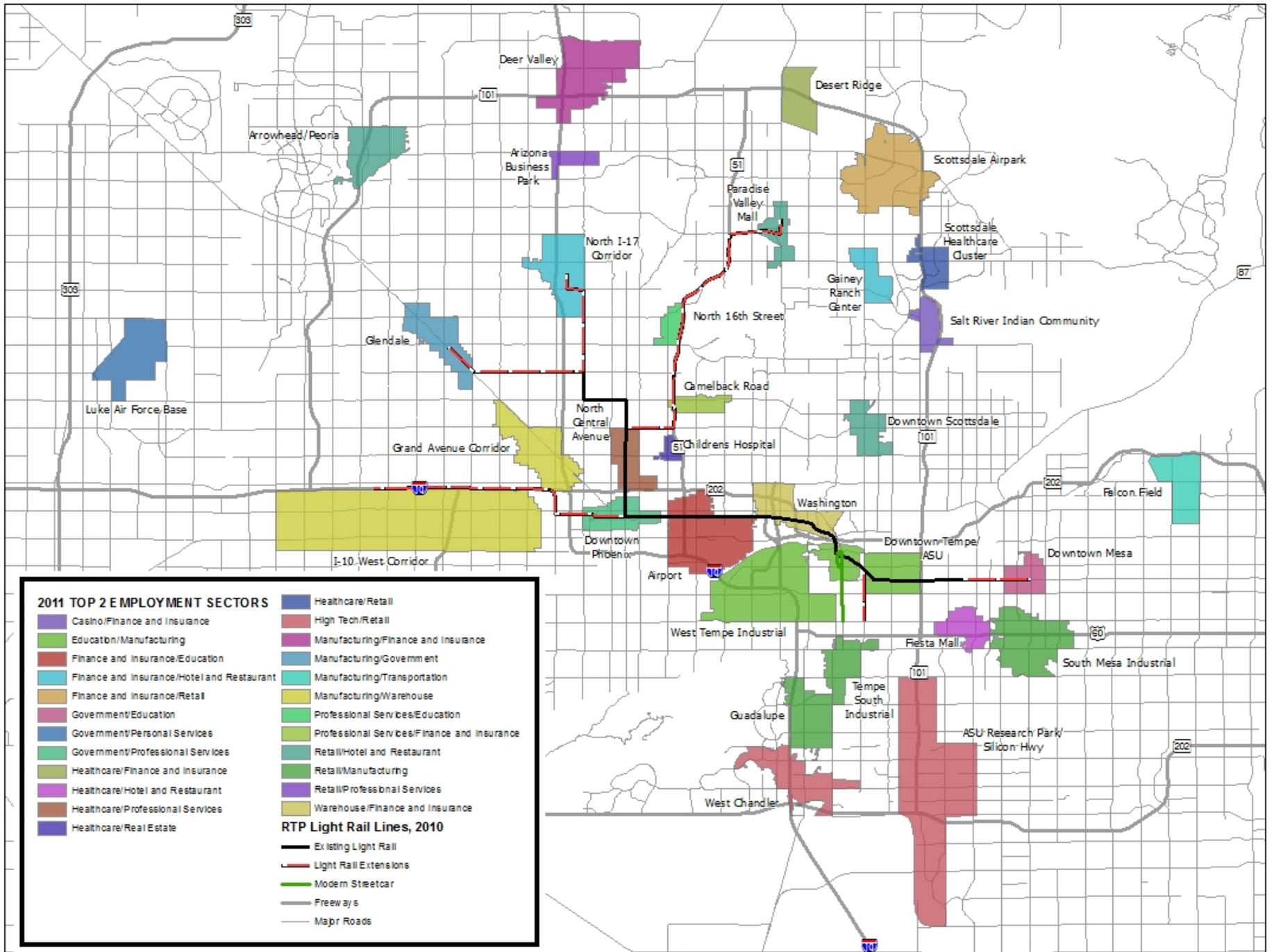
## Aspects to consider:

- ❖ Public policies regarding land use/zoning, infrastructure, etc.
- ❖ Spatial concentrations of firms, occupations, functions, etc.
- ❖ Degree of housing-jobs mismatch
- ❖ Access to transit

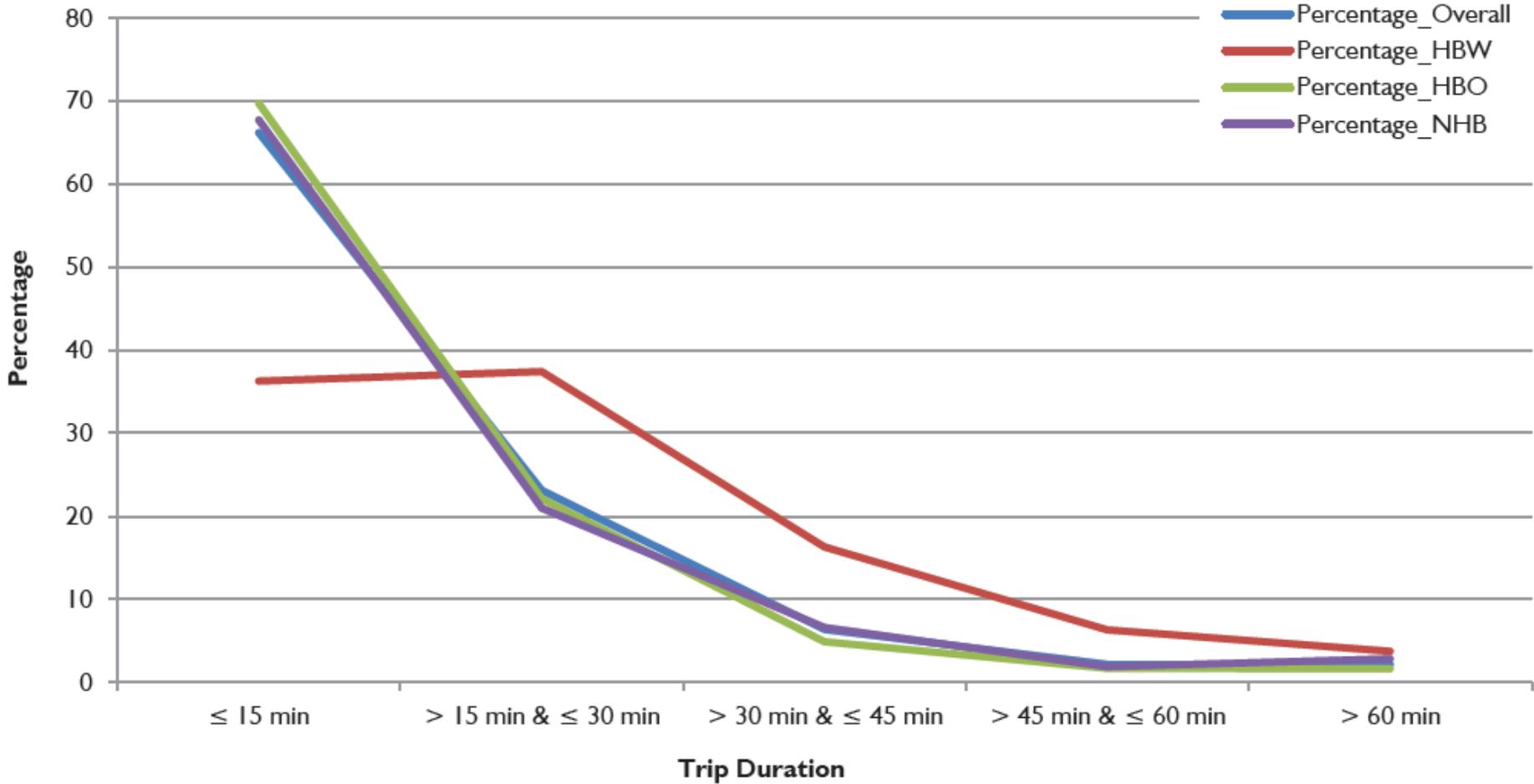
# **SPATIAL EFFICIENCY - FACTS**

- **Polycentric development pattern.**
- **Industry sectors cluster within sub-areas.**
- **Average travel delay time consistently below average.**
- **Workers tend to live and work within 30-minute commute.**
- **58% of jobs located within L-101 and L-202 beltway, where 55% of the population lives.**
- **Over 60% of developable land is Federal/State owned.**
- **Situated along major freight corridor.**

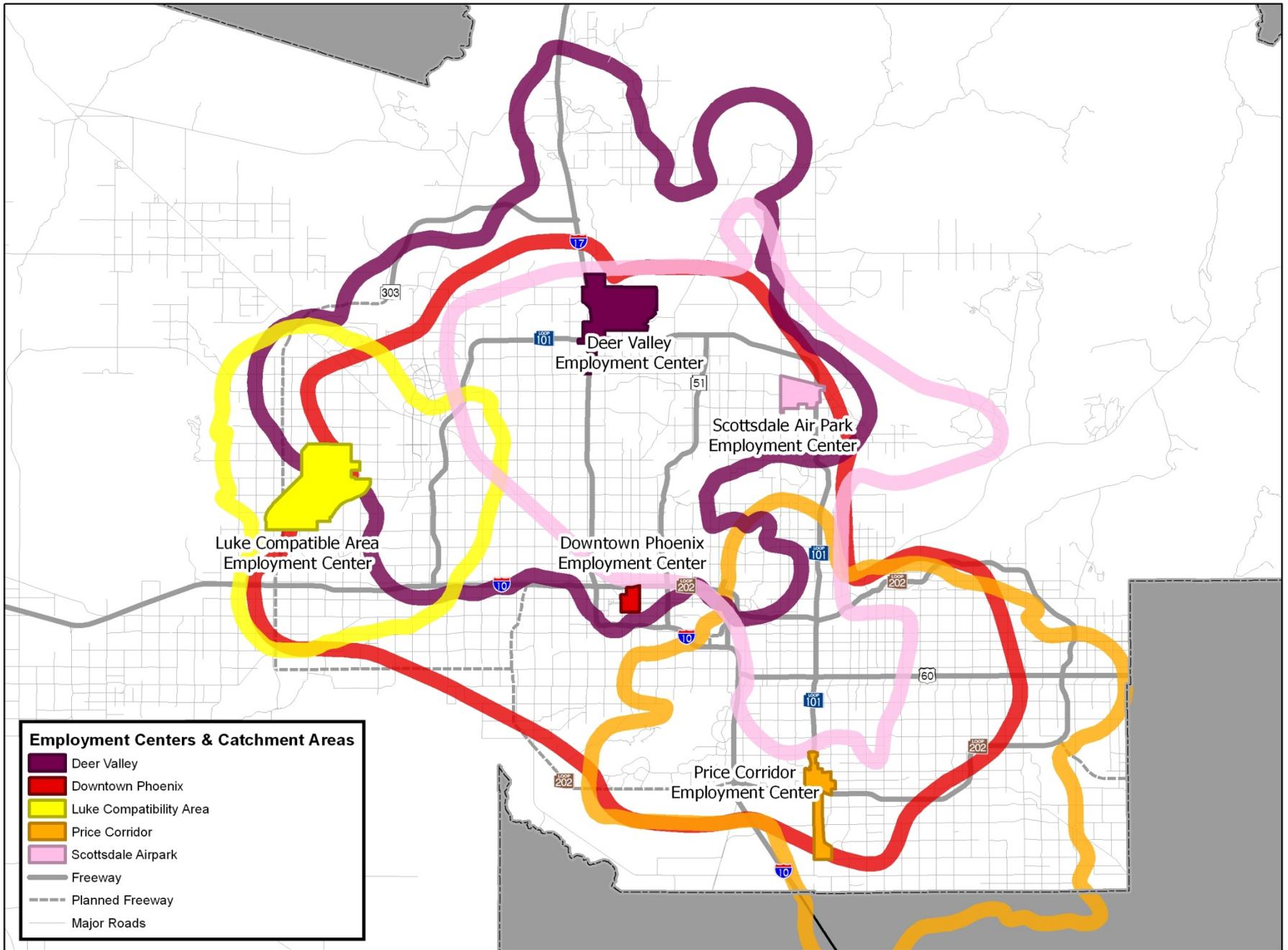




# Frequency Distribution of each Trip Type by Duration (Reported)



*HBW: Home Based Work (travel between home and work);  
HBO: Home Based Other;  
NHB: Not Home Based*



**Employment Centers & Catchment Areas**

- Deer Valley
- Downtown Phoenix
- Luke Compatibility Area
- Price Corridor
- Scottsdale Airpark
- Freeway
- Planned Freeway
- Major Roads



**Legend**

- Major City
- ⚓ Major Port (Existing & Future)
- 🚚 Major Land Port of Entry
- 📦 Joint Planning Advisory Council Area

**Transportation**

- Major Roadway Linkage
- Other Roadway
- Major Railway Linkage
- Other Railway
- Proposed Future Interstate

# ASSESSMENT OF OPPORTUNITIES

- **Leverage vacant lands to develop multi-centered, mixed use developments, connected by high capacity transportation systems**
- **Develop new methods of financing of new and replacement public infrastructure**
- **Expand tools that enhance redevelopment efforts such as tax increment financing**
- **Provide a more diverse mix of housing types and prices near employment centers to reduce commuter trip links**

# **SPATIAL EFFICIENCY – DISCUSSION QUESTIONS**

**What do we need to foster well-connected, mixed use, vital communities that efficiently connect firms, workers and customers and enhance the region's place types?**

- ❖ Where are opportunities for mixed-use and innovation-enhancing developments?**
- ❖ Are there opportunities for transformative infrastructure (next gen. energy, IT, public transit, PUDs)?**
- ❖ What level of coordination is needed across jurisdictions (land use, permitting)?**
- ❖ Are there opportunities to develop new tools and methods of financing for redevelopment and infrastructure projects?**
- ❖ What strategies are needed to diversify housing types and prices near employment centers?**

# **GREAT PHOENIX GOVERNANCE**

# Discussion Agenda

**Market facts and observations**

**Assessment of opportunities**

**Strategies for addressing opportunities and gaps**

**Coordination with existing efforts**

# GOVERNANCE

## What is it?

- ❖ **Government and civic sector activities hinder or enhance the productivity of economic systems – attracting entrepreneurs, enabling markets, lowering transaction costs, increasing deployment of assets, etc.**

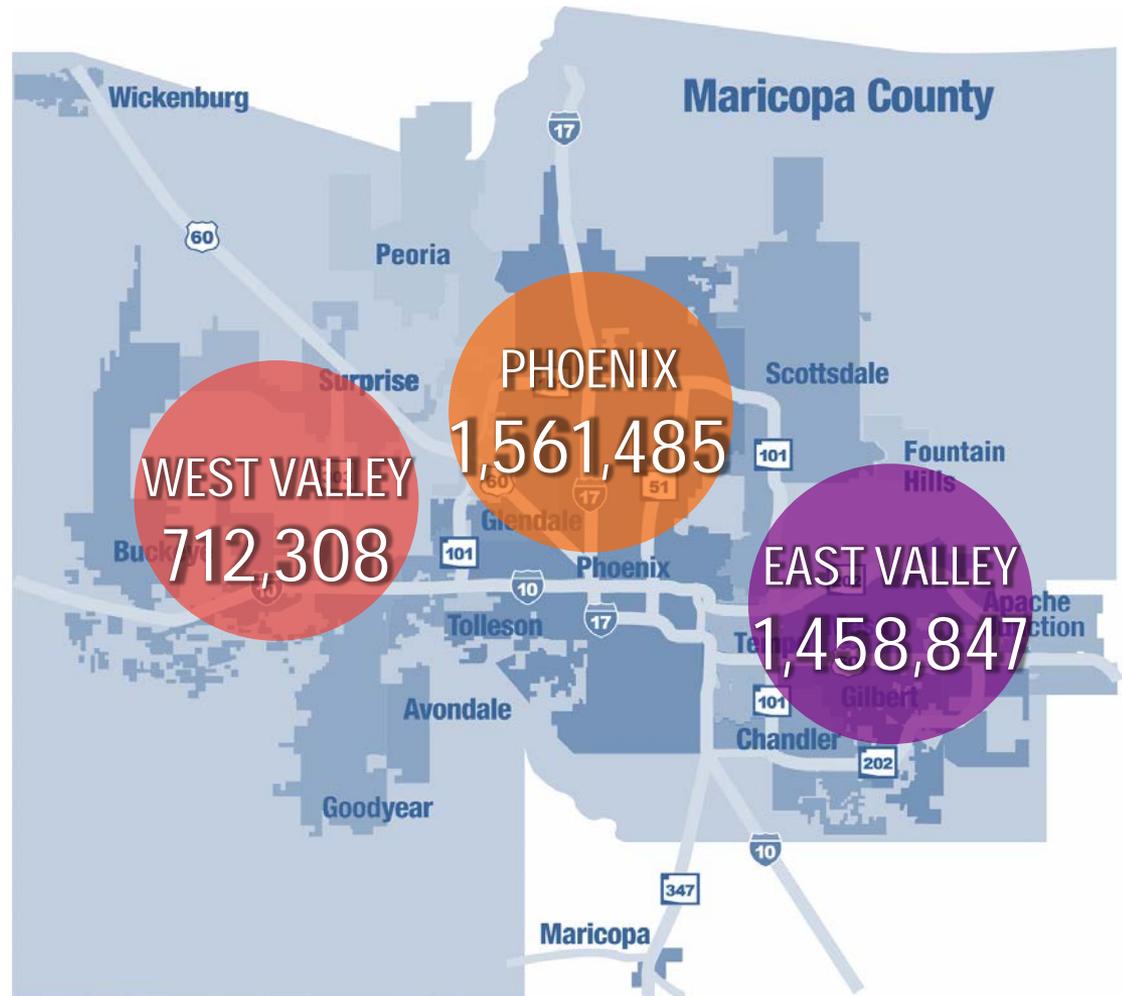
## Aspects to consider:

- ❖ **Degree of horizontal and vertical fragmentation**
- ❖ **Tax and regulations, value proposition**
- ❖ **Areas and mechanisms for inter-jurisdictional coordination**
- ❖ **Strategic engagement of citizens, private and civic sectors**
- ❖ **Transparency, openness, responsiveness**

# GOVERNANCE - FACTS

**Our region has low degree of fragmentation**

- ❖ **25 municipalities under a single county**
- ❖ **5th out of 100 U.S. metros in terms of number of governments per 10,000 people.**
- ❖ **18th out of 100 U.S. metros in terms of special district governments per 10,000 people.**



# GOVERNANCE - FACTS

## Our region's current status on taxes and regulations...

- ❖ **Local governments rely on sales tax...**
  - ✓ **Sales tax revenue ranges from 35 to 55 percent of city's general fund**
- ❖ **They also rely on state and urban revenue sharing...**
  - ✓ **Actual revenue collection increased on annual average 3.3% (FY2000-12)**
  - ✓ **Urban revenue sharing increased on annual average 1% (FY2000-12)**
- ❖ **Seven of 25 cities and towns do not collect property tax**
- ❖ **Local revenue models are complex**
- ❖ **Permit fees and regulations vary significantly across cities**

# GOVERNANCE - FACTS

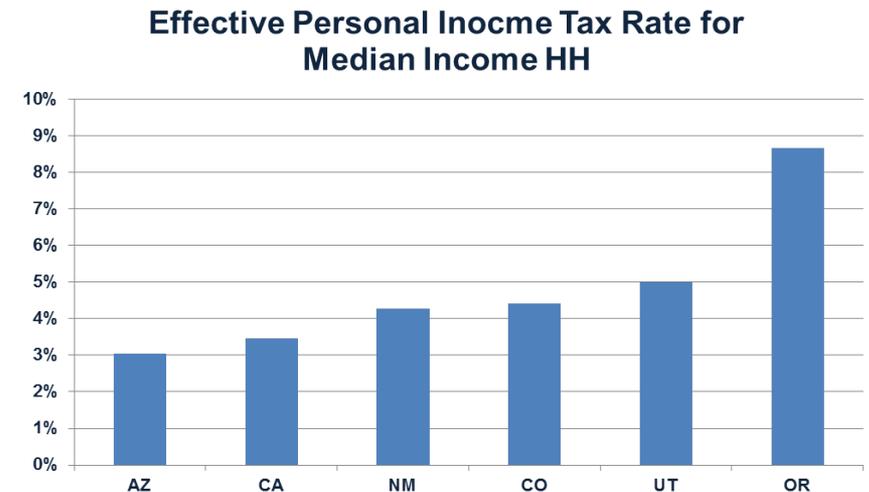
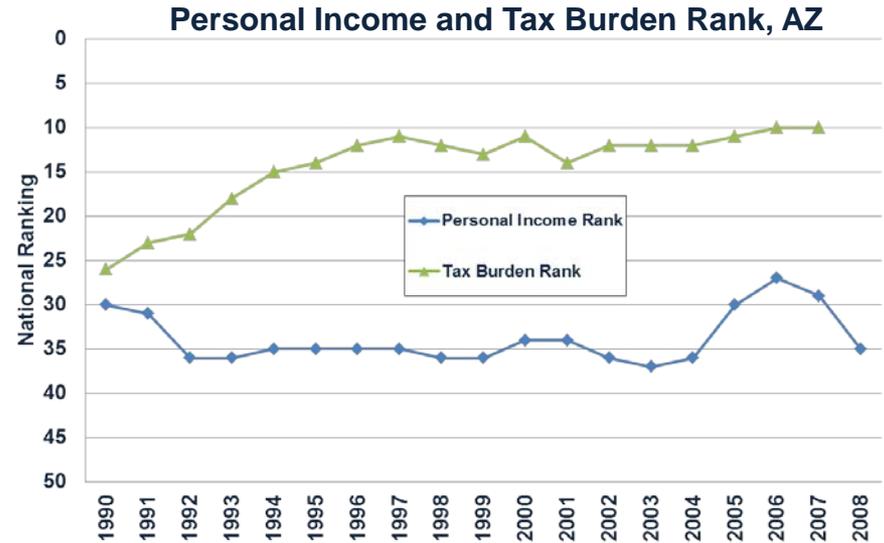
**High performing economies need a balanced taxes/regulations and provision of public services**

- ❖ **Public services, such as education (K-12 through universities), provision and maintenance of physical infrastructure , social services, public safety, are important to businesses and residents alike**
- ❖ **Need of public services rises during economic downturns, for example – AHCCCS**
- ❖ **Positioning our assets for the next economy will require providing the right kind of infrastructure and investment in education**

# GOVERNANCE - FACTS

## Tax-value misalignment

- ❖ Taxes provide revenues necessary for provision of public services valued by businesses and residents
- ❖ Personal income flat while overall tax burden lowered through broad-based tax cuts
- ❖ Relatively low personal income tax rate

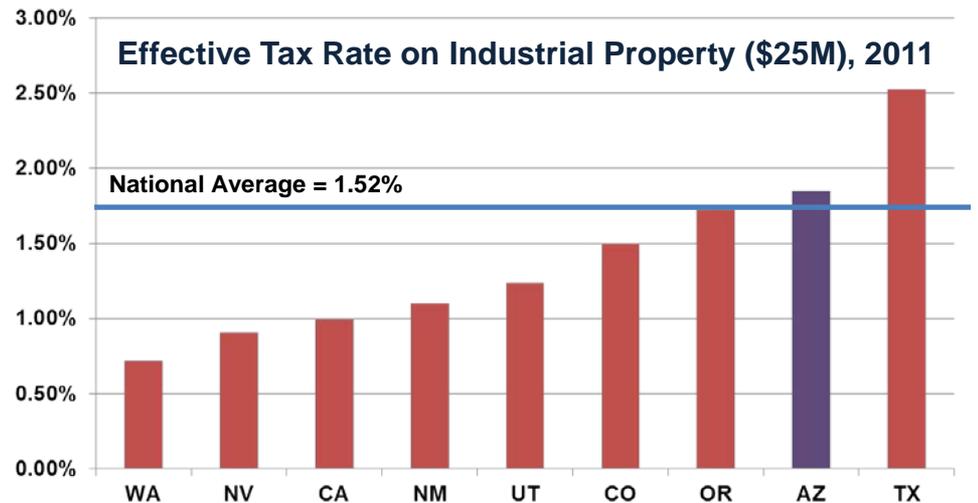
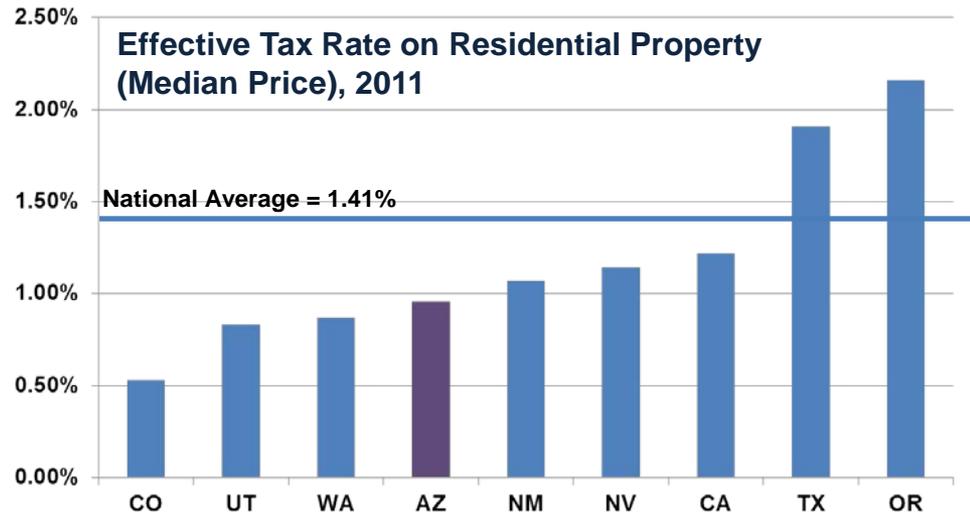


Source: Tax Foundation

# GOVERNANCE - FACTS

## Tax-value misalignment...

- ❖ Wide disparity between industrial and residential property taxes
- ❖ High property taxes on capital-intensive industrial assets (39<sup>th</sup> highest in the nation)
- ❖ Low residential property taxes impact schools and local public services (15<sup>th</sup> highest in the nation)

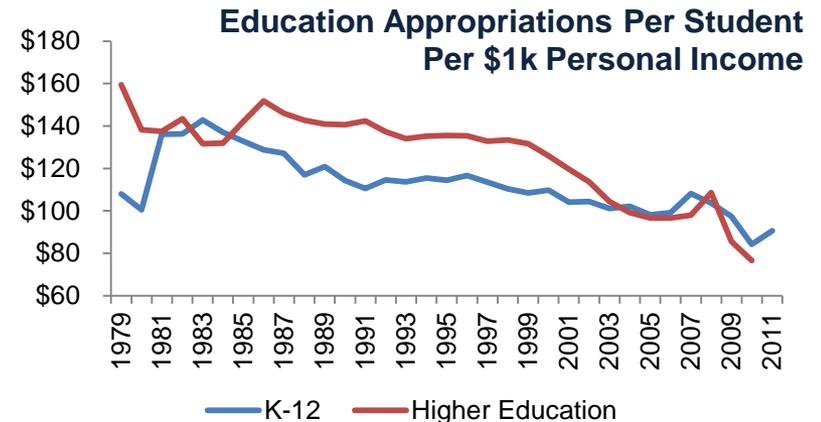


Source: MN Tax Payers Association, Lincoln Land Institute

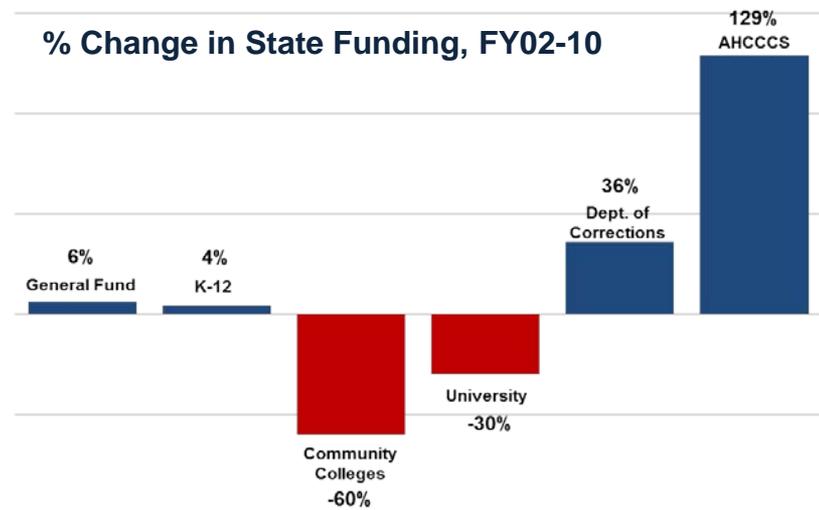
# GOVERNANCE - FACTS

**Strategic and targeted public investment enhance economic performance**

- ❖ **Education - AZ had the second largest cut to education in the nation (24% decrease per student FY08-12, Center for Budget and Policy Priorities)**
- ❖ **Public infrastructure (transportation, IT, energy)**
- ❖ **Science and technology (centers of excellence, R&D, commercialization)**



Source: Morrison Institute for Public Policy



Source: GPEC analysis of state budget

# GOVERNANCE - FACTS

## Limited civic engagement compared to older regions...

- Arizona is 40th in the country for the number of philanthropic institutions
- The Virginia G. Piper Charitable Trust, The Rodel Foundation, Helios Education Foundation and the Flinn Foundation are among the larger philanthropic foundations active in the region
- Business leaders engaged in organizations such as Greater Phoenix Leadership, Greater Phoenix Economic Council, WestMarc, East Valley Partnership, Greater Phoenix Chamber
- Limited number of corporate headquarters in the region

# ASSESSMENT OF OPPORTUNITIES

- **Encourage public-private partnerships and coordination for strategic investments in innovation-enabling infrastructure**
- **Enhance coordination among the state's congressional delegations, legislatures, regional agencies, and local governments**
- **Opportunities for economic development role of government - Provide useful tools that would facilitate the implementation of regional and community objectives such as Tax Increment Financing**

# GOVERNANCE – DISCUSSION QUESTIONS

**What kind of alignment is needed to capitalize on our growth potential?**

- ❖ **What kind of strategic and targeted investments can be made to improve regional competitiveness in the next economy?**
- ❖ **What opportunities exist to coordinate and streamline services/initiatives among cities?**
- ❖ **How can regulatory and business environment be more efficient (permitting, licensing, inspections, etc.) to support business growth?**